

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A gas oil fraction hydrotreatment process comprising:

~~characterized by using providing as a feed oil~~ a hydrorefined petroleum-based hydrocarbon oil with a sulfur content of 5-15 ppm by mass, a total aromatic content of 10-25 % by volume and a boiling point range of 150-380°C ~~as the feed oil~~; and

subjecting said feed oil to hydrotreatment in the presence of a hydrogenation catalyst to obtain an ultralow sulfur and a low aromatic gas oil fraction having a sulfur content of not greater than 1 ppm by mass and a total aromatic content of not greater than 1 % by volume.
2. (Currently Amended) A gas oil fraction hydrotreatment process according to claim 1, ~~characterized in that~~

wherein said feed oil has a monocyclic aromatic content of 9-18 % by volume and a bicyclic or greater aromatic content of 1-7 % by volume, and said ultralow sulfur and low aromatic gas oil fraction has a bicyclic or greater aromatic content of not greater than 0.2 % by volume.
3. (Currently Amended) A gas oil fraction hydrotreatment process according to claim 1 or 2, ~~characterized in that the~~ wherein reaction conditions for said hydrotreatment are preferably a reaction temperature of 170-320°C, a hydrogen partial

pressure of 2-10 MPa, a liquid hourly space velocity of 0.1-2 h⁻¹ and a hydrogen/oil ratio of 100-800 NL/L.

4. (Currently Amended) A gas oil fraction hydrotreatment process according to ~~any one of claims 1 to 3~~, claim 1,

~~characterized in that~~ wherein said feed oil has a paraffin content of 30-60 % by volume and a naphthene content of 25-60 % by volume, ~~while and~~ said ultralow sulfur and low aromatic gas oil fraction has a paraffin content of 30-60 % by volume and a naphthene content of 40-70 % by volume.

5. (Currently Amended) A gas oil fraction hydrotreatment process according to ~~any one of claims 1 to 4~~ claim 1,

~~characterized in that~~ wherein said hydrogenation catalyst ~~is one having~~ includes at least one kind of active metal from among Group 8 metals supported on a porous support.

6. (Currently Amended) A gas oil fraction hydrotreatment process according to claim 5, ~~characterized in that~~

wherein said porous support ~~is composed of~~ comprises alumina and at least one substance selected from the group consisting of titania, zirconia, boria, silica, phosphorus and zeolite.

7. (Currently Amended) A gas oil fraction hydrotreatment process according to claim 5 or 6, characterized in that

wherein said active metal is comprises at least one kind of metal selected from the group consisting of Ru, Rd, Ir, Pd and Pt.

8. (Currently Amended) An ultralow sulfur and low aromatic gas oil fraction having a sulfur content of not greater than 1 ppm by mass and a total aromatic content of not greater than 1 % by volume, characterized by being obtained by a process according to any one of claims 1 to 7 formed by a process comprising the steps of:

providing as a feed oil a hydrorefined petroleum-based hydrocarbon oil with a sulfur content of 5-15 ppm by mass, a total aromatic content of 10-25 % by volume and a boiling point range of 150-380°C; and

subjecting said feed oil to hydrotreatment in the presence of a hydrogenation catalyst to obtain an ultralow sulfur and a low aromatic gas oil fraction having a sulfur content of not greater than 1 ppm by mass and a total aromatic content of not greater than 1 % by volume.

9. (Currently Amended) A gas oil composition characterized by comprising an ultralow sulfur and low aromatic gas oil fraction having a sulfur content of not greater than 1 ppm by mass and a total aromatic content of not greater than 1 % by volume, and obtained by a process according to any one of claims 1 to 7 claim 1 formed by a process comprising the steps of:

providing as a feed oil a hydrorefined petroleum-based hydrocarbon oil with a sulfur content of 5-15 ppm by mass, a total aromatic content of 10-25 % by volume and a boiling point range of 150-380°C; and

subjecting said feed oil to hydrotreatment in the presence of a hydrogenation catalyst to obtain an ultralow sulfur and a low aromatic gas oil fraction having a sulfur content of not greater than 1 ppm by mass and a total aromatic content of not greater than 1 % by volume.